

Before The  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, DC 20554

In the Matter of

Faurecia Clarion Electronics North America

Amendment to Petition For Declaratory Ruling And  
Request For Waiver of Section 15.255(c)(3) of the  
Commission's Rules For Interactive Motion Sensing  
Devices

ET Docket No. \_\_\_\_\_

**AMENDMENT TO PETITION FOR DECLARATORY RULING AND  
REQUEST FOR WAIVER OF SECTION 15.255(C)(3)**

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## I. INTRODUCTION AND SUMMARY

On January 20, 2021, Faurecia Clarion Electronics North America (“Faurecia”) submitted a Petition for a Declaratory Ruling and Request for Waiver of Rule 15.255(c)(3) (the “Petition”) to the Federal Communications Commission (“Commission”). This Petition relates to Faurecia’s in-cabin automotive sensor (“Sensor”) that uses millimeter wave (“mmwave”) technology and is designed to operate within the 57-64 GHz band. Faurecia requested that the Commission issue a declaratory ruling stating that each of the Sensor’s proposed uses are permissible under 47 C.F.R. § 15.255(a)(2), or in the alternative, that the Commission waive Section 15.255(a)(2) to allow the Sensor to operate in the 57-64 GHz band. Faurecia’s Petition also requested a waiver of the power limits established in 47 C.F.R. § 15.255(c)(3) to enable Faurecia’s Sensor to operate in the same footprint allowed by the Commission for Google’s Soli device.

Before Faurecia filed its Petition, seven other manufacturers of in-vehicle automotive sensors had submitted similar waiver requests, asking the Commission to waive Section 15.255(a)(2) to the extent necessary in order to allow their sensors to operate in the 57-64 GHz band, and to waive the power limits established in Section 15.255(c)(3).<sup>1</sup> The Commission released six of these waiver petitions for public notice and comment – specifically,

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<sup>1</sup> **(1)** Vayyar Imaging Ltd., Request for Waiver of Section 15.255(c)(3), ET Dkt. No. 20-15 (Nov. 13, 2019) (“Vayyar Waiver”); **(2)** Valeo North America, Inc. Request for Waiver of Section 15.255(a)(2) and (c)(3), ET Dkt. No. 20-121 (March 31, 2020) (“Valeo Waiver”); **(3)** Infineon Technologies Americas Corp. Request for Waiver of Sections 15.255(a)(2) and (c)(3), ET Dkt. No. 20-263 (July 23, 2020) (“Infineon Waiver”); **(4)** Tesla, Inc. Request for Waiver of Sections 15.255(a)(2) and (c)(3), ET Dkt. No. 20-264 (July 31, 2020) (“Tesla Waiver”); **(5)** IEE Sensing Inc. Request for Waiver of Sections 15.255(c)(2) and (c)(3), ET Docket No. 20-435 (Nov. 16, 2020) (“IEE Waiver”); **(6)** Brose North America Inc. Request for Waiver of Section 15.255(c)(3), ET Dkt. 20-434 (Nov. 25, 2020) (“Brose Waiver”); **(7)** Acconeer AB Request for Waiver of 47 C.F.R. § 15.255(c)(3) (Dec. 23, 2020) (“Acconeer Waiver”).

the Vayyar Waiver, the Valeo Waiver, the Infineon Waiver, the Tesla Waiver, the IEE Waiver, and the Brose Waiver. Then, on April 14, 2021, the Office of Engineering and Technology (“OET”) issued an Order pertaining to these six waiver requests. *See In the Matter of Vayyar Imaging Ltd. Request for Waiver of Section 15.255(c) of the Commission Rules*, FCC Order, DA 21-407 (Apr. 14, 2021). The Commission made two key determinations. First, the Commission found that it was appropriate to waive the operating restrictions in Section 15.255(a)(2) to permit the use of sensors that are factory-installed into a passenger motor vehicle for child detection and other safety-related vehicular-monitoring purposes. *Id.* ¶¶ 38, 49-50. Second, the Commission found that it was appropriate to waive the power limits in Section 15.255(c)(3) to permit the radar sensors to operate at the same power levels and duty cycle granted to the Google Soli radar. *Id.* ¶¶ 49-50. In a footnote, the Commission acknowledged that it had received additional waiver requests related to unlicensed use of the 57-65 GHz band (citing to both the Faurecia Waiver and Acconeer Waiver), but that the Commission intended to address those requests separately. To date, however, the Commission has not yet issued a decision on Faurecia’s Petition.

Pursuant to 47 C.F.R. § 1.3 and 47 C.F.R. § 1.41, Faurecia hereby submits this Amendment to its Petition in order to request that the Commission act expeditiously on its Petition and grant the same relief that was provided to the six sensor manufacturers referred to above. As Faurecia’s Sensor will also be a factory-installed in-cabin sensor designed to operate in the same power limits as the Google Soli, the Commission’s waiver analysis in its Order applies equally to the device here. Accordingly, Faurecia requests that the Commission permit operation of its Sensor by waiving both Sections 15.255(a)(2) and (c)(3). To the extent that

Faurecia requested any other form of relief in its original Petition, Faurecia hereby withdraws such requests in order to simplify the issues and allow for prompt Commission action.<sup>2</sup>

In the alternative, if for any reason the Commission is unwilling to grant to Faurecia the same waiver issued previously, Faurecia urges the Commission to grant a waiver that incorporates any additional technical parameters that are now believed to be necessary. Specifically, Facebook, Intel and Qualcomm have argued that the transmit duty cycle should not exceed 10% in any 33 millisecond interval and that any radar off-time that is less than 2 milliseconds should be considered as “on time” for purposes of computing the duty cycle. In a subsequent letter to the Commission, Google, LLC (“Google”) explained that these new limitations are potentially harmful to the performance of these devices and are not necessary. Nevertheless, if the Commission believes that these additional limitations may be necessary to protect the operations of augmented reality/virtual reality/mixed reality (AR/VR/MR) devices used inside vehicles, Faurecia is prepared to accept a waiver that adopts these new limitations, along with the other conditions in the prior order.

Irrespective of whether the Commission grants to Faurecia its preferred relief (the identical waiver granted to other firms) or whether the Commission grants the alternative form of relief (incorporating Facebook’s new suggested limitations), Faurecia urges the Commission to act expeditiously on this waiver request. Continued delay will weaken Faurecia’s ability to compete in this sector and may harm its relationships with automobile manufacturers. Equally important, by weakening competition, any delay would be contrary to the public interest.

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<sup>2</sup> In Faurecia’s view, the OET has or should have the authority necessary to grant this waiver. This waiver request does not present any “new or novel arguments not previously considered by the Commission.” (47 C.F.R. § 0.241(a)(3)-(4).) To the contrary, this waiver request seeks exactly the same relief granted to six other manufacturers several weeks ago. OET therefore has all the necessary authority to issue the requested waiver. (*Id.* § 0.31(g)(i) and (j).)

## **II. BACKGROUND**

### **A. Faurecia's In-Cabin Automotive Sensor**

Faurecia is a leading global supplier of dashboards, cockpits, and other systems and components to automobile manufacturers. Faurecia's Sensor is a millimeter wave radar sensor that operates in the 60-64 GHz band. Presently, it is expected to have a maximum conducted power of +10 dBm, a maximum EIRP of +13 dBm and will operate with a maximum duty cycle of 10%.<sup>3</sup> This Sensor will comply with the Commission's radiofrequency radiation exposure limits with a power density lower than 1mw/cm<sup>2</sup> per 30 minutes. The emission code is F3N, and the frequency tolerance is 100ppm (2%). The Sensor will utilize Multiple Input Multiple Output (MIMO) antennas, driven by a highly configurable FMCW transceiver with a 4-GHz continuous bandwidth.

The Sensor will be mounted inside the cabin of the vehicle behind the roofliner. The Sensor is designed to cover the inside cabin area with a maximum field of view of  $\pm 85^\circ$  for both azimuth and elevation angles. In-vehicle radar modulation will consist of consecutive frames, including an acquisition sequence comprised by a repetition of frequency chirps or stepped chirps, a listening period, then a signal processing. The acquisition sequence is followed by idle time where antennas are not transmitting. The frequency chirps will span over a 5GHz bandwidth within the 57-64 GHz band and the duty cycle is designed to comply with the FCC power density limit by cycling between processing, scanning, and idle state.

This Sensor could potentially have several different uses, all of which are safety-related. The primary purpose of the Sensor is to detect children left behind inside the vehicle's

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<sup>3</sup> These specifications are identical to those in other sensors that are covered by existing Commission waivers.

cabin. This includes detecting children in conditions where their presence is difficult to detect in a traditional way, such as a young child hiding in the vehicle footwell area or a young child covered with a blanket and sleeping. This feature would be activated when the vehicle is parked. Faurecia's mmwave radar technology has some advantages over other sensing systems, including camera-based systems or in-seat occupant detection systems. Unlike cameras, mmwave provides depth perception and can "see" through soft materials, such as a blanket covering a child in a child restraint. Furthermore, mmwave can differentiate between a child and an object left on the seat, reducing the likelihood of false alarms, and mmwave is capable of detecting micro-movements like breathing patterns and heart rates. With the Sensor in place, the driver or the registered vehicle owner could receive a text message whenever a child is left behind in the vehicle. This reminder could encourage the vehicle owner or the driver to return to the vehicle and attend to the child. This feature is particularly well-suited to address the risk of heatstroke in children inadvertently left in hot cars.

Second, this Sensor could provide safety benefits by detecting movements or breathing patterns that might indicate that an occupant is having a heart attack, experiencing a medical emergency, or on the verge of falling asleep. In this instance, the system could be designed to send an appropriate warning to the driver.<sup>4</sup> Similar to the first use, this feature would be activated when the vehicle is parked.

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<sup>4</sup> Potentially, this Sensor could also provide information that would be useful in connection with the vehicle's air bag system. The Sensor could differentiate between a person and an object inside the vehicle, thereby avoiding activation of the air bag when an object is present. Likewise, the Sensor could potentially differentiate between a full size adult and a small child or infant. This information would be useful in avoiding air bag activation where the air bag could create injuries to a child or infant.

Third, this Sensor could detect unwanted intrusion in the vehicle while the vehicle is parked. It could enable the vehicle to send a text message to the driver or vehicle owner indicating that there is a person entering the vehicle or already inside the vehicle. This would allow the recipient of the text message to take appropriate precautions before attempting to re-enter the vehicle.

**B. Faurecia's Request For Waiver Of Section 15.255(c)(3)**

On January 20, 2021, Faurecia submitted to the Commission a Petition that sought three forms of relief. First, Faurecia requested that the Commission issue a declaratory ruling, pursuant to 47 C.F.R. § 1.2, stating that each of the Sensor's proposed uses (outlined above) are permissible and qualify as a short-range interactive motion sensing functions under Section 15.255(a)(2) of the Commission's Rules.<sup>5</sup> *See* Petition, at 6-9. (As explained below, in the interest of expediting Commission action, Faurecia is no longer seeking declaratory relief of any kind.)

Second, Faurecia requested, in the alternative, that to the extent the Commission finds that any of Faurecia's proposed Sensor uses are currently prohibited by the Part 15 rules, that the Commission waive the requirements of Section 15.255(a)(2) to allow the Sensor to operate in the 57-64 GHz band for each use for which the Commission determines a waiver is necessary.<sup>6</sup> As Faurecia explained in its Petition, issuance of such a waiver is aligned with the

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<sup>5</sup> *See* 47 C.F.R. § 15.255(a)(2) (prohibiting use of field disturbance sensors in the 57-71 GHz band "unless the field disturbance sensors are employed for fixed operation, or used as short-range devices for interactive motion sensing").

<sup>6</sup> The Commission's rules may be waived for good cause. 47 C.F.R. § 1.3. A waiver is appropriate where the particular facts would make strict compliance inconsistent with the public interest. *See AT&T Wireless Services, Inc. et al. v. FCC*, No. 00-1304 (D.C. Cir. 2001), *citing Northeast Cellular Tel. Co. v. FCC*, 897 F.2d 1164, 1166 (D.C. Cir. 1990). The Commission may grant a waiver of its Rules where the requested relief would not undermine the policy objective of the rule in question, special circumstances warrant a deviation from the general rule,



public interest, as the Sensor will assist vehicle manufacturers in their ongoing efforts to ensure the safety of drivers and passengers. Specifically, the in-cabin Sensor will help to avoid unnecessary deaths and injuries, such as children tragically overheating in a parked hot car, passengers suffering serious injury due to air bag malfunctions or to an unfastened seat belt in a crash, or a driver having a heart attack in the middle of busy traffic. Additionally, the waiver will not undermine the policy objective of the rule, which is to allow the use of interactive motion sensors while avoiding or minimizing the potential for harmful interference within the 57-64 GHz band. *See* Petition, at 10-11.

Third, Faurecia requested that the Commission grant a waiver of the power limits within Section 15.255(c)(3), so that if the company needs to exceed such power limits in order for its Sensor to function reliably and meet customer demands, it would be allowed to occupy the same footprint that the Commission approved for Google's Soli sensor. (*See* Google Waiver Order ¶¶ 5, 12, and 14.)<sup>7</sup> Faurecia explained that such a waiver would not undermine the purpose of the rule, because (like the Google Soli) the Sensor posed minimal risk of harmful interference to other spectrum users. In addition, a deviation from the rules would be in the public interest, as the Sensor has the potential to save lives, reduce injuries, and provide enhanced security. *See* Petition, at 11-14.

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and such deviation will serve the public interest. *See generally, WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969), *cert. denied*, 409 U.S. 1027 (1972); *see also Northeast Cellular*, 897 F.2d at 1166.

<sup>7</sup> The Commission granted Google's request on the following basis: limited power levels at +10 dBm conducted power, +13 dBm EIRP, and +13 dBm/MHz spectral power density, and compliance with a maximum 10% duty cycle (transmissions no longer than 3.3 ms in any 3.3 ms time period).

**C. The Commission’s Order Granting Other Similar Or Identical Waiver Requests**

As noted above, on April 14, 2021, the Commission issued an Order in response to petitions from six manufacturers that similarly sought waivers of Sections 15.255(a) and (c)(3) for use of their in-vehicle sensors in the 57-64 GHz frequency band at higher power levels than specified in the rule. With respect to these sensors, the other six manufacturers are Faurecia’s direct competitors. Their petitions were filed just weeks or months ahead of Faurecia’s Petition. In deciding the six petitions together, the Commission noted the requests’ similarities, stating that “[w]ith certain differences, all requests have one common purpose: to provide vehicular passenger safety and theft prevention applications when the radar is installed inside passenger motor vehicle cabins with the primary function to prevent risks of children inadvertently left unattended in a rear seat in hot weather.” Order, ¶ 2.<sup>8</sup> In addition, “[e]ach of the parties request to operate their respective radars at the same power levels and duty cycle we granted to Google in the 2018 waiver (i.e., +13 dBm EIRP, +13 dBm/MHz power spectral density and 10% duty cycle).” *Id.* ¶ 7.

The Commission found that it was appropriate to waive the operating restrictions in Section 15.255(a)(2) and the power limits in Section 15.255(c)(3) to permit the use of these sensors that are factory-installed into a passenger motor vehicle at the same power levels and duty cycle granted to the Google Soli radar (subject to certain conditions). *Id.* ¶¶ 49-50, 53. The Commission specifically found that both elements of the waiver standard were satisfied, stating (1) a waiver would not undermine the purpose of the rule, as a radar operating in the 57-64 GHz

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<sup>8</sup> See also *id.* at ¶ 7 (“The parties further envision that their proposed devices would provide other automated vehicular functions, such as passenger presence detection, seatbelt alarm/airbag deployment, driver inattention detection, and vehicle intrusion detection.”).

band in a passenger motor vehicle at the same duty cycle as the Google Soli would not cause harmful interference to other authorized users in the band (*id.* ¶¶ 40-41); and (2) a waiver is in the public interest, as “[i]t is clear from the record that granting the pending waivers will provide substantial public benefit in improving passenger safety – most notably the prevention of vehicular pediatric heatstroke deaths – while at the same time enhancing opportunities for additional vehicular automation and theft prevent applications” (*id.* ¶ 50).

In reaching this decision, the Commission addressed all public comments submitted on each of these six petitions. Various interested parties had opined on whether the in-vehicle sensors qualified as short-range interactive motion devices and/or required a waiver under Section 15.255(a)(2), and whether the Commission should grant a waiver of Section 15.255(c)(3) to allow the sensors to operate at the same power levels as the Google Soli. *See, e.g., id.* ¶¶ 11-12, 15-16, 19-20, 23-24, 30, 32. Nearly all comments expressed support for the Commission allowing these sensors to operate as intended in the 57-64 GHz band. *See id.* Of the couple comments that raised a concern, the Commission evaluated those concerns and found them unfounded. *See id.* ¶¶ 44, 50. In addition, while some commenters had suggested that the Commission engage in a rulemaking rather than a waiver analysis (*see, e.g., id.* ¶ 12), the Commission found that a waiver was the best approach to addressing the specific in-cabin radar applications in the short run, as it “will permit innovative radar systems to begin saving lives without posing interference threats to authorized users in the band...” *Id.* ¶ 50.<sup>9</sup>

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<sup>9</sup> Faurecia recognizes that a rulemaking might be beneficial in the long run, and Faurecia has no objection to the initiation of a rulemaking. However, Faurecia’s view is that action on its Petition cannot rationally or fairly be deferred for the several year period required to complete a rulemaking. Faurecia should receive the same relief granted to its competitors. In the absence of such relief, Faurecia’s ability to serve its customers in the automotive industry will be impaired, and the competitive process will be weakened.

**D. The Position Taken By Facebook And Its Allies, And The Response By Google, LLC**

A few weeks after the Commission's waiver decision was issued, Facebook, Intel, and Qualcomm (the "Facebook Group") submitted a letter to the Commission.<sup>10</sup> This letter did not directly discuss the waiver requests that were still pending and instead focused on the standards that should be adopted in a rulemaking. The Facebook Group argued that additional technical limitations or parameters should be adopted in any future rulemaking relating to the 57 to 64 GHz band.<sup>11</sup> The Facebook Group expressed concern that the existing waiver parameters could potentially allow use of in-cabin radar device that would interfere with AR/VR/MR devices used inside the same vehicle.<sup>12</sup> To avoid such potential interference, the Facebook Group suggested that two additional conditions were necessary: (a) the radar devices should not have a transmit duty cycle of 10% in any 33 millisecond interval, and (b) any radar off time period between two successive radar pulses that is less than 2 milliseconds should be considered as "on time" for purposes of computing the duty cycle.<sup>13</sup>

Three days later, in a letter to the Commission dated May 17, 2021, Google responded.<sup>14</sup> Google suggested that "regulatory proposals being put forth to address theoretical

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<sup>10</sup> Letter From Alan Norman, Director, Public Policy, Facebook, Carlos Cordiero, CTO Wireless at Intel, and John Kuzin, Vice President and Regulatory Counsel, Qualcomm, to Marlene Dortch, Secretary, FCC in ET Docket Nos. 21-48, 20-435, 20-434, 20-263, 20-264, 20-121, and 20-15 (filed May 10, 2021) (the "Facebook Letter").

<sup>11</sup> *Id.* at 1-3.

<sup>12</sup> *Id.*

<sup>13</sup> *Id.*

<sup>14</sup> Letter From Megan Anna Stull, Senior Counsel, Google, LLC to Marlene Dortch, Secretary, FCC, in GN Docket No. 14-177, ET Docket Nos. 21-48, 20-435, 20-434, 20-263, 20-264, 20-121, and 20-15 (filed May 17, 2021) (the "Google Response").

concerns, for example, with regard to latency for prospective AR/VR offerings, should be balanced against impacts of real operations of radars and other 60 GHz technologies.”<sup>15</sup> Google explained that regulatory guarantees of such latency would substantially degrade performance of FMCW radars. . . .”<sup>16</sup> “Such a rule restricting radars also would be unnecessary due to radars’ low transmission power, low potential to generate interference, and antenna directionality, as well as propagation loss in the 60 GHz Band.”<sup>17</sup> Like the Facebook Group, Google was focused solely or primarily on the need for a rulemaking and on the policies that should be adopted in the rulemaking, not on the waiver petitions that were still pending.

### **III. ARGUMENT**

#### **A. Faurecia Is Seeking The Same Waiver Granted To Other Sensor Manufacturers**

Faurecia submits this Amendment to its Petition to modify its request in order to seek the same relief that was granted to the six manufacturers described above. Specifically, Faurecia asks the Commission to grant a waiver of Section 15.255(a)(2) to enable use of Faurecia’s Sensor in passenger motor vehicles, and to grant a waiver of Section 15.255(c)(3) to enable Faurecia’s Sensor to operate at the same power levels as the Google Soli device. Faurecia will, of course, adhere to each of the conditions laid out in the Commission’s April 14, 2021 Order (¶ 53). To the extent that Faurecia sought any relief in its Petition that differs from the relief granted to the six manufacturers, Faurecia now seeks to rescind those other requests (for

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<sup>15</sup> *Id.* at 2-3.

<sup>16</sup> *Id.* at 3.

<sup>17</sup> *Id.*

example, its request for a declaratory ruling stating that its Sensor qualified as a short-range interactive motion sensing device).

Faurecia is entitled to the same relief that the Commission granted to the other six manufacturers. Like those manufacturers, Faurecia is seeking waivers for an in-vehicle sensor that is designed to provide vehicular passenger safety applications, with the primary purpose being to prevent children being left unattended in cars in hot weather. Faurecia similarly is seeking to operate its Sensor within the footprint that the Commission approved for the Google Soli device. Given the close similarities between Faurecia's Petition and the petitions submitted by the six other manufacturers, the Commission's analysis in its April 14, 2021 Order is equally applicable here. Accordingly, good cause exists for the Commission to grant a waiver of Sections 15.255(a)(2) and (c)(3) to enable operation of Faurecia's sensor in passenger motor vehicles.

**B. To Provide A Level Playing Field Among Competitors, The Commission Should Grant The Identical Waiver To Faurecia On An Expedited Basis**

As noted above, the Commission has already solicited public comment on the two questions at issue here, namely, whether a waiver of Section 15.255(a)(2) should be granted to enable operation of in-vehicle sensors, and whether a waiver of Section 15.255(c)(3) should be granted to enable in-vehicle sensors to operate at the same power levels as Google Soli's device. The public comments were nearly all favorable, and the Commission fully addressed the few concerns that were raised. The OET is delegated authority to grant follow on ("me-too") rule waivers for radiofrequency products that are technically and functionally equivalent to devices that previously received waivers. *See* 47 C.F.R. § 0.241(a)(3)-(4).<sup>18</sup> Given that the public has

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<sup>18</sup> OET has delegated authority to administer Part 15 and to perform engineering, management, and licensing functions relating to the certification of radio equipment. *See* 47 C.F.R. § 0.31(g), (i), and (j). OET is instructed to refer to the full Commission any waiver

already had an opportunity to comment on these issues, there is no need to solicit public comment on Faurecia's "me-too" Amended Petition. *Cf.* Public Notice, OET Seeks Comment on Vayyar Imaging Ltd. Request for Waiver of Sections 15.255(b)(2) and 15.255(c)(3) of the Commission's Rules for Radars Used for Interactive Motion Sensing in the 57-064 GHz Band, ET Dkt. 20-15 (Jan. 14, 2020) ("Although Vayyar asserts that its device is sufficiently similar to Google's device such that we should simply proceed to a final decision, we conclude that, given the relatively recent evolution of short-range interactive sensing technologies in the 57-64 GHz band that are the subject of Vayyar's request, the public interest is best served by first establishing a short pleading cycle for any interested parties to comment.").

The Commission should grant Faurecia's Amended Petition on an expedited basis in order to promote automotive safety and provide a level playing field among competitors. At the time that the Commission issued its April 14, 2021 Order, Faurecia's Petition was pending (along with the Acconeer Petition, which also has not been decided). If the six other manufacturers are able to proceed with operation of their in-vehicle sensors, but Faurecia and Acconeer are forced to wait until the completion of a potential rulemaking, these two firms will be placed at a significant competitive disadvantage. Such a result would be in conflict with the Commission's historical commitment to promoting, not hindering, competition. *See, e.g., Statement of Commissioner Jessica Rosenworcel, Approving in Part, Dissenting in Part, FCC 20-152*, <https://docs.fcc.gov/public/attachments/FCC-20-152A4.pdf> (emphasizing the importance of competition in the market and stating that "[c]ompetition is at the heart of the Telecommunications Act of 1996."). *See also* Remarks of FCC Commissioner Susan Ness

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requests or petitions containing "new or novel arguments not previously considered by the Commission." (*Id.* § 0.241(a)(3)-(4).) At this point, however, there is nothing new or novel here. Faurecia is merely seeking the same relief granted to its competitors.

Before the Florida Communications Policy Symposium Tallahassee (Feb. 17, 1999), <https://www.fcc.gov/document/remarks-commissioner-susan-ness-florida-communications-policy> (stating that the FCC is committed to the goals of promoting competition, fostering innovation, and advancing competitive goals worldwide, all of which are “pillars of the Telecommunications Act of 1996”); Benton Institute for Broadband & Society, *FCC Chairman Pai: ‘Level Playing Field for Old Regulations and New Tech a Challenge’* (Oct. 25, 2018), <https://www.benton.org/headlines/fcc-chairman-pai-%E2%80%98level-playing-field-old-regulations-and-new-tech-challenge%E2%80%9999> (quoting Chairman Pai’s response to evolving technologies, stating that the FCC must “figure out how we find a level-playing field that promotes investment and innovations for all these firms without disadvantaging any one of them.”).<sup>19</sup>

**C. In The Alternative, The Commission Should Grant Faurecia A Waiver That Incorporates Facebook’s Recommended Limitations Relating To The Duty Cycle**

Faurecia would strongly prefer to receive the same relief granted to its competitors in mid-April. Faurecia recognizes, however, that rightly or wrongly, the letter submitted by the Facebook Group may have raised new concerns within the Commission. If necessary, Faurecia therefore is prepared to accept a waiver that adopts and incorporates the Facebook Group’s recommended changes relating to the duty cycle for these devices.

Again, in the long run, if the Commission amends its rules, all radar manufacturers, including Faurecia, will have to comply with the standards contained in the new rules. Thus, any waivers granted in 2021 may effectively have a limited lifespan. From

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<sup>19</sup> There are many provisions in the Communications Act of 1934, as amended, that encourage or require the Commission to promote competitive market conditions. *See, e.g.*, 47 U.S.C. §§ 160(b), 230(b), 257(a).



Faurecia's standpoint, however, continued delay or inaction by the Commission would be the worst possible outcome. The market for these devices is highly competitive and Faurecia will be able to meet its customers' needs only if the Commission acts promptly and provides the requested relief.

#### **IV. CONCLUSION**

Faurecia respectfully requests that the Commission act promptly to grant the relief requested herein. Faurecia's Sensor will provide a multitude of safety benefits to drivers and vehicle occupants, including infants and small children. These benefits will be obtained without causing harmful interference to other spectrum users. Furthermore, Faurecia is willing to accept all of the conditions and limitations imposed in the Commission's April 14, 2021 Order.

Accordingly, the Commission should waive any requirements in Section 15.255(a)(2) that would block uses of this in-cabin Sensor for automotive safety purposes. Additionally, the Commission should grant a waiver that allows Faurecia to exceed the existing power limits, while staying within the footprint allowed for Google's Soli device. Faurecia understands and agrees that under this approach, Faurecia would be required to accept the standards or limitations contained in any new rules adopted by the Commission. Consequently, the waiver would be in full force and effect for a limited period of time.

In the alternative, the Commission should grant a waiver to Faurecia that incorporates the new duty cycle limitations recommended by the Facebook Group, along with the prior conditions. As Google has explained, these new parameters are not necessary and may degrade the performance of in-cabin radar devices. However, in the interest of avoiding any further delay, Faurecia is willing to accept such limitations on an interim basis. Ultimately, if

and when the rulemaking governing the 57-64 GHz band is completed, Faurecia and its competitors will then operate under the rules that will be adopted by the Commission.

Respectfully submitted,



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